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| 09/467,509      | 12/20/1999  | DAVID L. Hecht       | 07447.0004-0        | 2485             |

7590 03/08/2005

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| EXAMINER |
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LAFORGIA, CHRISTIAN A

|          |              |
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| ART UNIT | PAPER NUMBER |
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2131

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/467,509

Applicant(s)

HECHT ET AL.

Examiner

Christian La Forgia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 4,5,11,16,17,22 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,6-10,12-15,18-21,23 and 25-40 is/are rejected.
- 7) ☒ Claim(s) 36 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01 November 2004 has been entered.

2. Claims 1-3, 6-10, 12-15, 18-21, 23, and 25-40 have been presented for examination.

3. Claims 4, 5, 11, 16, 17, 22, and 24 have been cancelled as per Applicant's request.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-3, 6-10, 12-15, 18-21, 23, and 25-32 have been considered but are moot in view of the new ground(s) of rejection.

5. See further rejections that follow.

### ***Claim Rejections***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1, 2, 6, 8-10, 12-14, 18-20, 25, 26, 28, 29, 32-36, and 38-40 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,521,372 to Hecht et al., hereinafter Hecht.

8. As per claims 1, 2, 6, 12, 14, and 18, Hecht teaches a record for marking encoded information comprising:

a marking medium (column 4, lines 46-61, i.e. "a recording medium");

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first marks on said marking medium having a covert code characteristic, said first marks conveying a covertly marked code (column 4, lines 46-61, column 5, line 48 to column 6, line 8, i.e. “a self-clocking data code for encoding said information, with this data code being composed of glyphs that are written in a two dimensional code field on said recording medium on centers that are spatially distributed in nominal accordance with a predetermined spatial formatting rule, where the glyphs are defined by respective symbols that are selected from a finite set of optically discriminable symbols to encode said information”);

said covert code characteristic indicating a feature of the covertly marked code that is visually undetectable by a human (column 4, lines 46-61, i.e. “where the glyphs are defined by respective symbols that are selected from a finite set of optically discriminable symbols to encode said information”); and

second marks on said medium that convey an overtly marked code (column 4, lines 46-61, i.e. “a self-clock synchronization code pattern that is written on said recording medium to fully frame at least a portion of said data code, with this said synchronization code pattern defining multiple paths of self-clocking glyphs for reaching any given glyph of synchronization code pattern from any other glyph thereof”);

said overtly marked code, when decoded, producing data for use in decoding said covertly marked code (column 4, lines 46-61, i.e. “with this said synchronization code pattern defining multiple paths of self-clocking glyphs for reaching any given glyph of synchronization code pattern from any other glyph thereof”).

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9. Regarding claims 8 and 19, Hecht teaches wherein said first marks are comprised of a first and a second set of marks, and only said second set of marks convey said covertly marked code (column 5, lines 48-65).

10. With regards to claims 9 and 20, Hecht teaches wherein said overtly marked code identifies the location of said second set of marks (column 6, line 41 to column 7, line 9).

11. Regarding claims 10, Hecht teaches wherein second marks include at least a subset of said first marks (column 6, line 41 to column 7, line 9, column 9, line 31 to column 13, line 17).

12. Regarding claim 13, Hecht teaches wherein said second marks include at least a subset of said first marks (column 6, line 41 to column 7, line 9, column 9, line 31 to column 13, line 17).

13. Regarding claims 25 and 28, Hecht teaches wherein the data produced for use in decoding said covertly marked code includes a location of the first marks on the encoded record (column 6, line 41 to column 7, line 9, column 9, line 31 to column 13, line 17).

14. Regarding claims 26 and 29, Hecht teaches wherein the data produced for use in decoding said covertly marked code includes information about how the covertly marked code was encoded on the record (column 6, line 41 to column 7, line 9, column 9, line 31 to column 13, line 17).

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15. With regards to claims 32 and 33, Hecht discloses wherein said overt code characteristic is an optically visible state of a glyph (column 14, lines 16-59).

16. Regarding claims 34 and 40, Hecht discloses wherein said first and second marks at least in part comprise the same marks, with said same marks having both a visibly undetectable covert code characteristic and a visibly detectable overt code characteristic (column 6, line 41 to column 7, line 9, column 9, line 31 to column 13, line 17).

17. Regarding claims 35 and 38, Hecht teaches wherein said covert code characteristic of said first mark is visibly undetectable (column 7, line 43 to column 8, line 66).

18. Regarding claims 36 and 39, Hecht discloses wherein said covert code characteristic of said first marks does not effect the appearance of said first and second marks (column 8, lines 11-48).

19. Claims 3 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hecht in view of U.S. Patent No. 5,225,900 to Wright, hereinafter Wright.

20. With regards to claims 3 and 15, Hecht does not teach wherein said covert code characteristic is a chemical taggant.

21. Wright teaches wherein said covert code characteristic is a chemical taggant (column 8, lines 48-66).

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22. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the covert code characteristic be a chemical taggant, since Wright discloses in column 8, lines 48-66 that such a modification would aid in the security of a document by preventing scanning.

23. Regarding claims 7 and 21, Hecht does not wherein said covertly marked code, when decoded, produces authentication data.

24. Moore teaches wherein said covertly marked code, when decoded, produces authentication data (column 6, line 51 to column 7, line 10).

25. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the covertly marked code produce authentication data, since Moore discloses at column 6, line 51 to column 7, line 10 that such a modification would aid in detecting counterfeit documents or goods.

26. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hecht in view of U.S. Patent No. 4,461,668 to Parker et al., hereinafter Parker.

27. Regarding claim 23, Hecht does not disclose wherein the first and second marks are applied via tri-level xerography.

28. Parker teaches wherein the first and second marks are applied via tri-level xerography (column 4, lines 47-63).

29. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the first and second marks using tri-level xerography, since Parker discloses

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at column 4, lines 47-63 that such a modification would allow two images to be laid down in one pass, thereby producing an image quicker.

30. Claims 27, 30, 31, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hecht.

31. Regarding claims 27 and 30, Hecht does not teach wherein said covertly marked code, when decoded, produces an encrypted message.

32. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the covertly marked code produce an encrypted message, since it has been held in the art that increasing the number of times a message has been encrypted increases the difficulty of cracking the message. See MPEP § 2144.04; see *In re Harza*, 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960).

33. As per claim 31, Hecht teaches a method for marking encoded information on a marking medium comprising the steps of:

placing first marks on said medium having a covert code characteristic indicating a feature of the covertly marked code that is visually undetectable by a human (column 4, lines 46-61, column 5, line 48 to column 6, line 8, i.e. “a self-clocking data code for encoding said information, with this data code being composed of glyphs that are written in a two dimensional code field on said recording medium on centers that are spatially distributed in nominal accordance with a predetermined spatial formatting rule, where the glyphs are defined by



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respective symbols that are selected from a finite set of optically discriminable symbols to encode said information”);

a subset of said first marks conveying a covertly marked code (column 4, lines 46-61, i.e. “where the glyphs are defined by respective symbols that are selected from a finite set of optically discriminable symbols to encode said information”); and

placing second marks on said medium adapted to convey an overtly marked code (column 4, lines 46-61, i.e. “a self-clock synchronization code pattern that is written on said recording medium to fully frame at least a portion of said data code, with this said synchronization code pattern defining multiple paths of self-clocking glyphs for reaching any given glyph of synchronization code pattern from any other glyph thereof”).

34. Hecht does not teach said overtly marked code, when decoded, producing an encrypted message and decryption data used by a secure server to decrypt the encrypted message; the decrypted message causing the secure server to produce decoding data indicating which ones of said first marks are included in the subset of said first marks that convey said covertly marked code.

35. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the covertly marked code produce an encrypted message, since it has been held in the art that increasing the number of times a message has been encrypted increases the difficulty of cracking the message. See MPEP § 2144.04; see *In re Harza*, 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960).

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36. Regarding claim 37, Hecht does not teach including third marks storing at least a portion of said encoded information, said third marks being distributed among said first and second marks.

37. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the covertly marked code produce an encrypted message, since it has been held in the art that increasing the number of times a message has been encrypted increases the difficulty of cracking the message. See MPEP § 2144.04; see *In re Harza*, 274 F.2d 669, 671, 124 USPQ 378, 380 (CCPA 1960).

### ***Claim Objections***

38. Claim 34 is objected to because of the following informalities: the claim language reads “a visibly undetectable convert code characteristic”. For the purposes of examination it shall be interpreted as “a visibly undetectable covert code characteristic.”

39. Appropriate correction is required.

### ***Conclusion***

40. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

41. The following patents are cited to further show the state of the art with respect to glyph codes, such as:

United States Patent No. 5,449,896 to Hecht et al., which is cited to show random access techniques for use with self-clocking glyph codes.

United States Patent No. 5,453,605 to Hecht et al., which is cited to show global address ability for self-clocking glyph codes.

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United States Patent No. 6,182,901 to Hecht et al., which is cited to show orientational disambiguation for self-clocking glyph codes.

United States Patent No. 5,611,575 to Petrie, which is cited to show distributed state flags or other unordered information for embedded data blocks.

42. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian La Forgia whose telephone number is (571) 272-3792. The examiner can normally be reached on Monday thru Thursday 7-5.

43. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

44. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Art Unit 2131

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